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**HIV/AIDS EDUCATION
IN SCHOOLS
EVALUATION**

**GRADE ELEVEN
STUDENT PROFILE**

SERIES REPORT: 4



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HIV/AIDS EDUCATION IN SCHOOLS EVALUATION:

GRADE 11 STUDENT PROFILE

SERIES REPORT: 4

by

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for

Alberta Health

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Introduction

Preparation for the HIV/AIDS Education In Schools Evaluation Project began in the fall of 1988. The research was carried out with the advice of the Working Group on HIV/AIDS Education in the Schools, which included membership from Alberta Health, Alberta Education, schools, health units, and community HIV/AIDS organizations. The project was funded by Alberta Health. The initial design for the project was developed in the fall of 1988, and during 1989 the research design, research questions, sample selection procedures, research instruments with accompanying letters, and project plan were prepared. The data collection was completed in the spring of 1990 by Dr. Lorne Seaman and analysis of the information was conducted by Drs. Munro and Doherty-Poirier in 1991.

The study that provided the data described here is discussed in detail in *HIV/AIDS Education in Schools Evaluation, Research Report: Series Report 1*. Extensive information is provided about what the grade 9 and 11 students who participated in the study had learned and about other aspects of HIV/AIDS education.

In this study two major research questions were asked:

- 1) What are the effects of HIV/AIDS instructional strategies on knowledge and attitudes, including intentions about future behaviour, of junior and senior high school students?
- 2) What are the effects of supporting HIV/AIDS instruction with specific print student learning resources on knowledge and attitudes, including intentions about future behaviour, of junior and senior high school students?

Grades 9 and 11 students who received HIV/AIDS instruction had significantly higher levels of knowledge and more positive attitudes than they did prior to instruction. Their knowledge and attitude scores were also significantly higher than those of students who did not receive instruction. For grade 11 students, receiving HIV/AIDS instruction

was also related to a significantly more positive view of their predicted future behaviour. However, the predicted future behaviour of grade 9 students did not change as a result of HIV/AIDS instruction. Possible reasons for this lack of change are discussed in *Report 1*.

In 1992, the report entitled *HIV/AIDS Education in Schools Evaluation: Teacher Profile, Series Report: 2* was written with a focus on the information provided by teachers who participated in the study.

This paper provides a detailed profile of the grade 11 students who participated in the study. It covers:

- 1) Descriptors
- 2) How informed students think they are about prevention of HIV/AIDS
- 3) How students rate the job that different sources are doing in informing them about HIV/AIDS and its prevention
- 4) Where students would first go for help if they thought they had contracted the AIDS virus or another STD
- 5) Knowledge scores
- 6) Attitude scores
- 8) Student perceptions of transmission and prevention of HIV/AIDS
- 7) Findings regarding condoms
- 8) Use and evaluation of student print resources
- 9) Use and evaluation of student audio-visual resources.

Methodology

The procedures and methods for this study are discussed in detail in *HIV/AIDS Education in Schools Evaluation: Research Report: Series Report: 1*.

The design of the study was quasi-experimental. It consisted of information collected from four groups of students, which were: pre-treatment, pre-control, post-treatment, post-control. The pre-treatment and pre-control groups completed pre-test questionnaires, whereas the post-treatment and post-control groups completed post-test questionnaires. The essential difference between the control and treatment groups was the timing of the HIV/AIDS instruction. The treatment group had HIV/AIDS instruction before the post-test and the control group had instruction after the post-test.

Students in the pre-control and pre-treatment groups were assumed for the most part to be the same students as the ones in the post-control and post-treatment groups, as they were in the same classes. However, individual students were not identified either pre or post, to ensure confidentiality.

Throughout this paper, the group of students who are being discussed are the post-treatment students only, unless otherwise indicated.

The sample size is 285 post-control, 916 pre-treatment, and 793 post-treatment grade 11 students. There were 51 grade 11 classes.

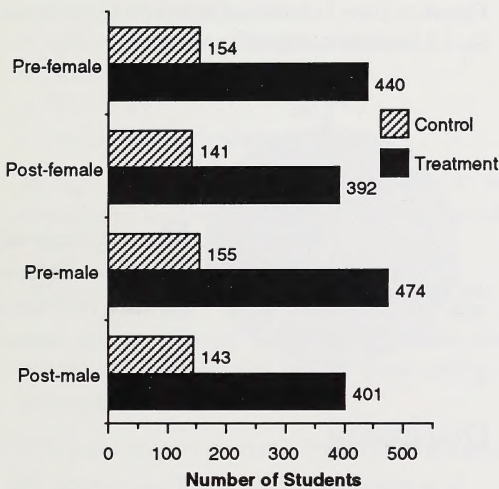
The statistical analyses used were Pearson r correlation, t-tests, one way-analysis of variance and chi square. The specific test utilized in each analysis is noted in a footnote where appropriate. The alpha level of significance set for the analyses was .05.

Scores on knowledge and attitudes are used in this study. Higher knowledge scores reflect a higher level of knowledge. A higher attitude score reflects more tolerant attitudes towards, for example, people with HIV/AIDS, education on HIV/AIDS and condom use.

Descriptors

- In the pre-control group there were 50% female students and 50% male students. The post-control group was made up of 50% females and 50% males.
- There were 48% female and 52% male students in the pre-treatment group and 50% of each of female and male students in the post-treatment group.

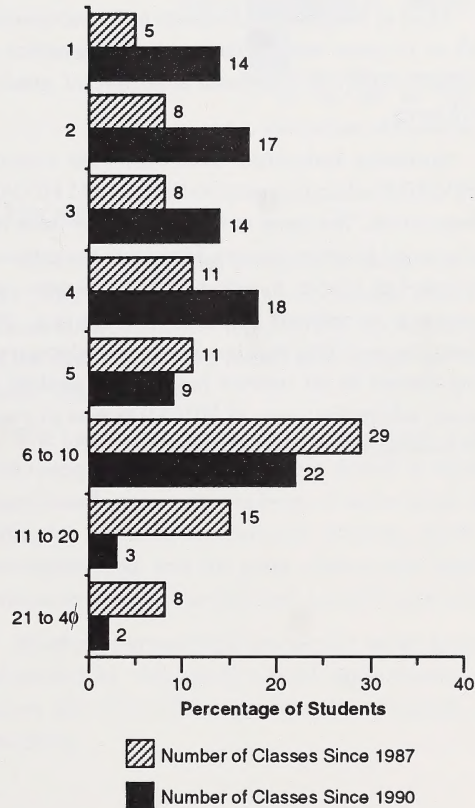
Figure 1: Gender Distribution of Grade 11 Students



- The grade 11 students ranged from 15 to 19 years of age.
- 64% of the students came from urban schools (60% metropolitan and 4% urban) and 36% came from rural schools. (30% of Alberta grade 11 students are rural.)
- Post-treatment students said that in the last year they had received between 1 and 25 classes on HIV/AIDS.
- Post-treatment students said they had received between 1 and 38 classes on HIV/AIDS over the past two years.

- Most of the students said they had received between 2 and 5 classes over the past year on HIV/AIDS.
- Most students said they had received between 6 and 10 classes on HIV/AIDS in the past two years, with the mean number of classes being 7.5.

Figure 2: Number of HIV/AIDS Classes that Grade 11 Students Say They Have Had Over the Last Year and the Last Two Years



- Between the pre-test and the post-test, a program on HIV/AIDS, "Talkin' About AIDS" was broadcast on national television during prime time. 25% of the post-treatment group and 15% of the post-control group watched the CBC broadcast. This television show was a possible intervening variable in the study.

Discussion

HIV/AIDS instruction was offered in control and treatment classes that had almost identical gender distribution. Differences between pre and post numbers of students were the result of classes dropping out of the study and/or routine absences.

Students were drawn from both rural and urban populations. The proportion of students representing the rural population was slightly higher than the proportion in the actual population.

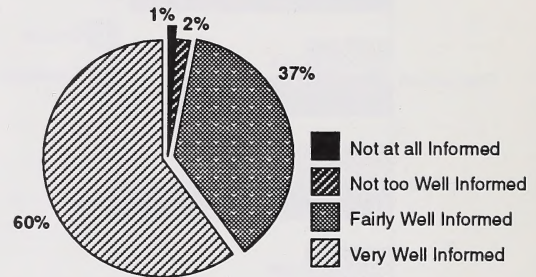
Most of the grade 11 students in the sample were 15 or 16 years of age. These are the ages that one would expect to dominate a sample of grade 11 students.

Students indicated that they had received HIV/AIDS education prior to the grade 11 HIV/AIDS instruction. The issue of HIV/AIDS may have been discussed in other courses. However, the estimated number of classes in which HIV/AIDS was a part seems to be inflated by some students (e.g., 30 or more classes). This may be a result of students counting classes in all courses (e.g., social studies, science) where the issue of HIV/AIDS was discussed in passing in relation to relevant issues.

How Informed Students Think They Are About Prevention of HIV/AIDS

- After HIV / AIDS instruction, 60% of students felt very well informed and 37% of students felt fairly informed about what they could do to prevent contracting the AIDS virus. Almost all (97%) of the students felt they were fairly or very well informed.
- Less than 1% felt not at all informed and 2% felt not too well informed.

Figure 3: How Informed Do Grade 11 Students Feel About HIV/AIDS?



Discussion

It is possible that the small percentage (3%) of the students who felt they were not informed were absent the day(s) that HIV/AIDS instruction was offered or perhaps they didn't feel that the HIV/AIDS issue was relevant for them.

How Students Rate the Job That Different Sources Are Doing in Informing Them About HIV/AIDS and Its Prevention

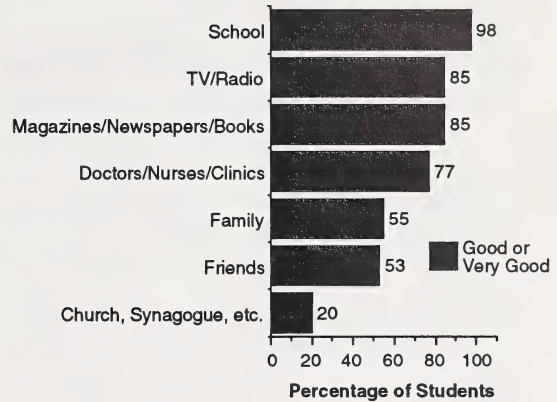
Students were requested to rate how successful different sources were in informing young people about HIV/AIDS, and its prevention. The sources were:

- family
- friends
- church/synagogue/etc.
- school (including resource material)
- doctors/nurses/clinics
- TV/radio
- magazines/newspapers/books

In Figure 4 are illustrated, for each source, the percentage of students rating the "job" as "good" or "very good."

- 98% said that the school was doing a good job.
- 85% of the students said that TV/radio, and magazines/newspapers/books were doing a good job.
- 77% rated doctors/nurses/clinics as doing a good job.
- 55% of students rated family as doing a good job, and 53% rated friends as doing a good job.
- 20% reported that the church/synagogue was doing a good job of informing them of HIV/AIDS and its prevention.

Figure 4: Student Perceptions of the Job Various Sources Do of Informing About HIV/AIDS



Discussion

After schools, grade 11 students chose the media, print materials and doctors/nurses/clinics as sources of information about HIV/AIDS. About half of the students saw the family as a "good" or "very good" source.

The success of schools could be related to the following factors that have been found to have a significant¹ impact on the level of knowledge and attitudes of students: inservice training, teaching strategies used, and the print student and teacher resources that the teachers had access to and used.

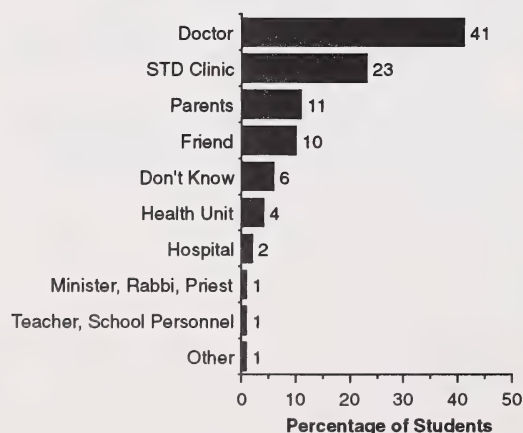
Working partnerships among the seven sources identified by this study would undoubtedly enhance the HIV/AIDS instruction that students are receiving.

¹ See *HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1* and *HIV/AIDS Education in Schools Evaluation: Teacher Profile, Series Report: 2*.

Where Students Would First Go for Help If They Thought They Had Contracted the AIDS Virus or Another STD

- 41% of students said they would first go to the doctor if they thought they had contracted the AIDS virus or another sexually transmitted disease.
- A smaller percentage said they would first go to a STD clinic (23%).
- The fourth choice mentioned by students would be their parent(s) (11%) or a friend (10%).
- There were 6% who said they did not know who they would contact.
- Very few students said their first contact would be the health unit or public health nurse (4%), hospital (2%), religious leader (1%), teacher or other school personnel (1%), and "others" (1%).

Figure 5: Where Students Would First Go for Help if They Thought They Had Contracted the AIDS Virus or Another STD



Discussion

The largest number of students said they would contact a doctor if they thought they had contracted the HIV/AIDS virus or another sexually transmitted disease. This would allow them to confirm or disprove their suspicions. The students exhibit the ability to differentiate among the roles of various professionals. They have identified the school as a good source of information about HIV/AIDS (educational role), and the doctor as the person from whom to receive medical care.

Interestingly, 6% of the students did not know who they would contact first. This may indicate that the sources of help need to be made more explicit in HIV/AIDS instruction or that students see a number of options, and are uncertain which to contact first.

Summary

Males and females were almost equally represented in the control and treatment groups. The grade 11 students in the sample ranged in age from 15 to 19 years of age with most of the students being the expected 15 and 16 years old. While the proportion of rural students in the sample was higher than the proportion of rural students in the general population, this difference was not great. The students reported that they had received between 1 and 25 classes on HIV/AIDS in the last year and between 1 and 38 classes over the past two years. Some of the high estimates of numbers of classes seem excessive and may or may not be accurate. The majority of students said they had received between 2 and 5 classes over the past year and between 6 and 10 classes over the past 2 years. These estimates are mostly consistent with what might be expected.

Almost all of the students (97%) felt they were well informed about prevention of HIV/AIDS. Their feeling that they were informed was valid, in that a majority of grade 11 students had a high level of actual knowledge in the area of prevention. The

students appear to be getting their information from good sources. Almost all of the students (98%) thought the school was a good source of information. A majority of students (75% or more) identified TV/radio, magazines/newspapers/books, and doctors/nurses/clinics as doing a good job. A moderate number of students (between 50 and 70 %) felt that family and friends were doing a good job. Fewer than 50% thought the church/synagogue was doing a good job. Students are receiving what they perceive to be good information from more than one source: from the school and the family, or the school and any of the other sources, or from any combination of resources.

It is difficult to know how the students interpreted the question "Where would you first go for help if you thought you had contracted the HIV/AIDS virus or another STD?" They may in actuality think they would go to several sources. However, the highest percentage seemed to need professional confirmation of their condition and said they would go to medically related services (doctors, STD clinics, health units, hospitals). The response of 6% of the students was that they did not know where they would go first. This may signal a need for further teaching on resource availability. Or, it may simply mean that students are uncertain about which of their many sources they would go to first.

HIV/AIDS Knowledge Scores

Based on the curricular materials, the total "knowledge" score of 39 points for students and teachers was comprised of the following areas:

- 1) Description — "What is HIV/AIDS?"
 - 2) Transmission — "How is HIV/AIDS passed on?"
 - 3) Prevention — "What things prevent the spread of HIV/AIDS?"
 - 4) Riskiness — "What behaviours place an individual at risk of acquiring HIV/AIDS?"
- Grade 11 students had a high level of knowledge about HIV/AIDS prior to receiving instruction on HIV/AIDS. Pre-treatment students had a mean total knowledge score of 30 (out of a total of 39) and post-control students had a score of 30, while post-treatment students had a mean total knowledge score of 33.
 - Students who had received HIV/AIDS education had a statistically significantly² higher level of knowledge than did students who had not received HIV/AIDS education.
 - Significant differences³ between post-control and post-treatment groups existed in all of the major knowledge areas (i.e., description, transmission, prevention, riskiness).
 - Transmission — Significantly more post-treatment students than post-control students knew that HIV/AIDS could not be transmitted by mosquitoes, through receiving a transfusion, or by giving blood.
 - Description — Significantly more post-treatment students than post-control students knew that a person can be HIV infected and not be detected for months.

² See *HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1*

³ T-tests were conducted between post-control and post-treatment groups on all items. Significance was assessed as p values at the .05 level of significance.

- Prevention — Significantly more post-treatment students than post-control students were accurate in their knowledge about not using vaseline with a condom during sexual intercourse, and using bleach with needles if they are shared.
- Risk — Significantly more post-treatment students than post-control students knew that having had two or three different sexual partners over the last five years, and passionate or deep kissing with no sexual intercourse were somewhat risky behaviours.
- 85% of post-treatment students knew that the name of the virus that causes AIDS is the Human Immunodeficiency Virus. Only 52% of pre-treatment students, and 61% of the post-control group were able to specify the name of the virus.
- There was no significant relationship between the teacher's level of knowledge and attitudes and the students' level of knowledge.

Discussion

Students in the control group had a high level of basic knowledge prior to receiving HIV/AIDS education. It is clear that students have been receiving HIV/AIDS information from other sources. Students indicated that their primary sources of information⁴ about HIV/AIDS were the school, TV and radio, and magazines, newspapers and books. Grade 11 students estimated that they have received between 1 and 38 classes on HIV/AIDS since 1987. Students were receiving accurate HIV/AIDS information in other school classes, and through TV and radio programs prior to taking the specified HIV/AIDS instruction. However, there are some vital areas where students enter the course with less information (see Table 1). These are the topics that should be targeted during HIV/AIDS instruction.

⁴ See *HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1*.

Table 1: Percentage of Grade 11 Students and Teachers Answering Knowledge Questions Correctly

	Teacher	Student Post- Control	Student Post- Treatment	Significant Difference ⁵
Transmission				
Through food	100	96	98	
From mosquitoes	100	77	91	*
Through receiving a transfusion	32	6	23	*
By giving blood	100	68	86	*
From public toilets	100	94	97	
From a swimming pool	100	95	98	
By hugging a person who has AIDS	100	99	98	
By working with someone who is infected with the AIDS virus	94	96	97	
From a woman to a man during sexual intercourse	100	98	98	
From a man to a woman during sexual intercourse	100	99	99	
From a mother to her baby during pregnancy	97	94	97	
Description				
AIDS interferes with fighting disease	100	92	96	
A person can carry HIV without symptoms	100	96	97	
HIV infected without detection for months	79	58	77	*
AIDS can be cured if treated early	100	92	95	
Gay females and males equally at risk	68	22	26	
Natural condoms more effective than latex	97	80	85	
Where the term AIDS comes from	97	91	96	
Prevention				
Abstaining from sexual intercourse	100	94	96	
Having sexual relations with only one person	98	91	94	
Using a condom during sexual intercourse	99	91	93	
Using a spermicide with a condom during vaginal intercourse	90	81	85	
Not using vaseline with a condom during sexual intercourse	87	60	71	*
For a woman, using the birth control pill is not effective	98	86	88	
Abstaining from using drugs intravenously	100	83	87	

cont'd . . .

⁵ T-test comparisons were calculated between post treatment students and post control students. Only differences at or beyond the .05 level are identified using *.

	Teacher	Student Post-Control	Student Post-Treatment	Significant Difference ⁵
Abstaining from sharing needles	98	91	94	
Cleaning needles with bleach if they are shared	72	47	57	*
Avoiding crowded public places, like night clubs as not being effective	97	94	97	
Avoiding socializing with gays as not being effective	93	75	71	
Risk — a risky situation for becoming infected with the AIDS virus is				
Sexual intercourse with a recent acquaintance	100	83	86	
Sexual intercourse with a man who has had sex with another man	98	93	96	
Anal intercourse without a condom	100	90	93	
Sexual intercourse with an intravenous drug user	100	94	96	
Risk — a somewhat risky situation for becoming infected with the AIDS virus is				
Having had two or three different sexual partners over the past five years	91	78	84	*
Passionate or deep kissing with no sexual intercourse	61	46	53	*
Oral-genital sex without a condom	89	80	85	
Risk — a somewhat safe situation for becoming infected with the AIDS virus is				
Two people who have had sexual intercourse only with each other	95	92	92	
Risk — a safe situation for not becoming infected with the AIDS virus is				
Abstaining from sexual intercourse over the past five years	98	95	96	
Sexual massage or petting with no sexual intercourse	90	83	86	

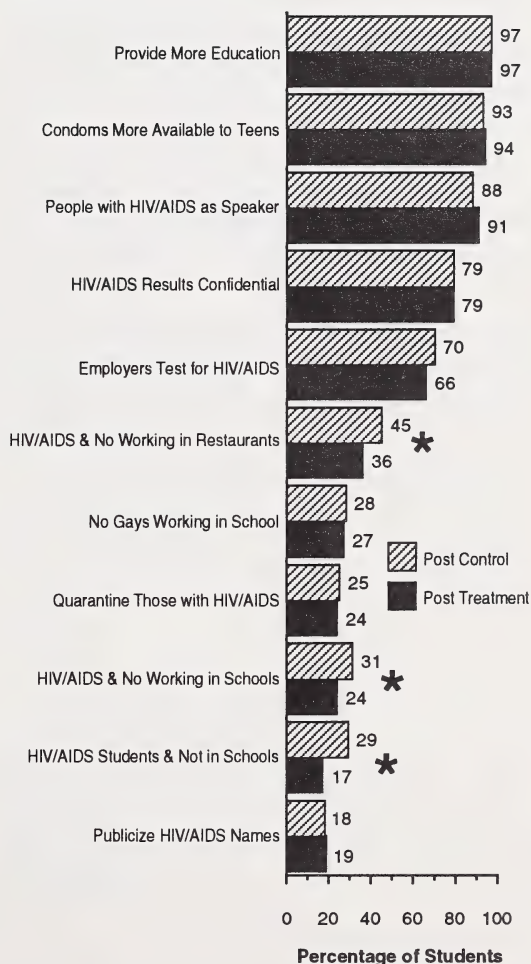
⁵ T-test comparisons were calculated between post treatment students and post control students. Only differences at or beyond the .05 level are identified using *.

HIV/AIDS-Related Attitude Scores

- The following attitudes were measured using closed questions with four-category, Likert-type scale responses: attitudes towards persons with HIV/AIDS, attitudes towards HIV/AIDS education, attitudes towards the use of condoms, and intentions about future behaviour.
- The total possible attitude score was 48.
- The average total attitude score for pre-treatment and post-control students was 34.
- The average total attitude score for post-treatment students was 37.
- There was a statistically significant⁶ difference between the attitude scores of pre and post-treatment groups.
- Both treatment and control students felt four issues were important. These were: a need to provide HIV/AIDS education (treatment 97%, control 97%), a need for condoms to be made more available to teens (treatment 94%, control 93%), that people with HIV/AIDS should be brought in as speakers (treatment 91%, control 88%), and that HIV/AIDS results should be kept confidential (treatment 79%, control 79%).
- 66% of treatment students and 70% of control students felt that employers should be allowed to test for HIV/AIDS before hiring employees.
- 27% of treatment students and 28% of control students thought that gays should not be allowed to work in schools.
- 24% of treatment students and 25% of control students felt that people with HIV/AIDS should be quarantined.
- 19% of treatment students and 18% of control students thought the names of people who are infected with HIV/AIDS should be publicized.

- Significantly fewer post-treatment students than post-control students felt that: HIV positive people should not be allowed to work in restaurants (treatment 36%, control 45%), people infected with the AIDS virus should not be allowed to work in schools (treatment 24%, control 31%), and that students infected with the AIDS virus should not be allowed to attend school (treatment 17%, control 29%).

Figure 6: Attitudes of Post-Treatment and Post-Control Grade 11 Students on HIV/AIDS Issues⁷



⁶ See *HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1*.

⁷ T-test comparisons were calculated between post-treatment students and post-control students. Only differences at or beyond the .05 level are identified using *.

Discussion

Both teachers and students had high levels of tolerant attitudes towards HIV/AIDS. Both groups (i.e., the post-treatment and post-control groups) strongly communicated their belief that there is a need to provide HIV/AIDS education, that there is a need for condoms to be made more available to teens, that people with HIV/AIDS should be brought into the classroom as speakers, and that HIV/AIDS results should be kept confidential.

The post-control group exhibited a lower level of tolerance of those with HIV/AIDS than did the post-treatment group. This may be related to the higher level of knowledge of the post-treatment group, as knowledge was highly correlated⁸ with attitudes towards HIV/AIDS. That is, students with higher knowledge scores on the post-test had higher attitude scores. Thus students' enhanced understanding of the facts about HIV/AIDS was related to a more tolerant attitude towards HIV/AIDS.

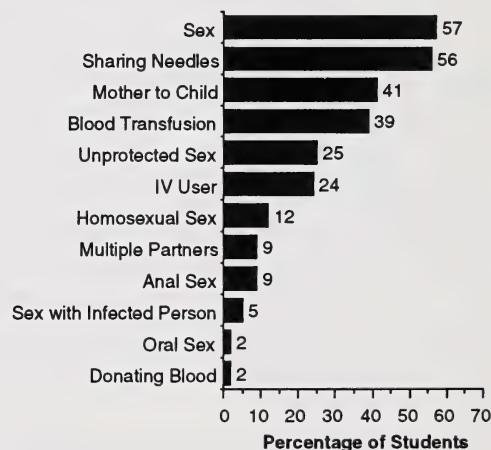
⁸ Pearson R correlation was used to test the level of association between knowledge and attitudes (students $r=.46$ and teacher $r=.68$). Both were significant at or beyond the .05 level of significance.

Student Perceptions of Transmission and Prevention of HIV/AIDS

Students were asked what they perceived to be common ways that people become infected with the AIDS virus.

- The top four responses to this question were: sex (57%), sharing needles (56%), mother to child (41%), and blood transfusions (39%).
- Students mentioned several other modes of transmission of HIV/AIDS. These were: unprotected sex (25%), IV users (24%), homosexual sex (12%), multiple partners (9%), anal sex (9%), sex with an infected person (5%) and oral sex (2%). A few students incorrectly cited donating blood (2%).

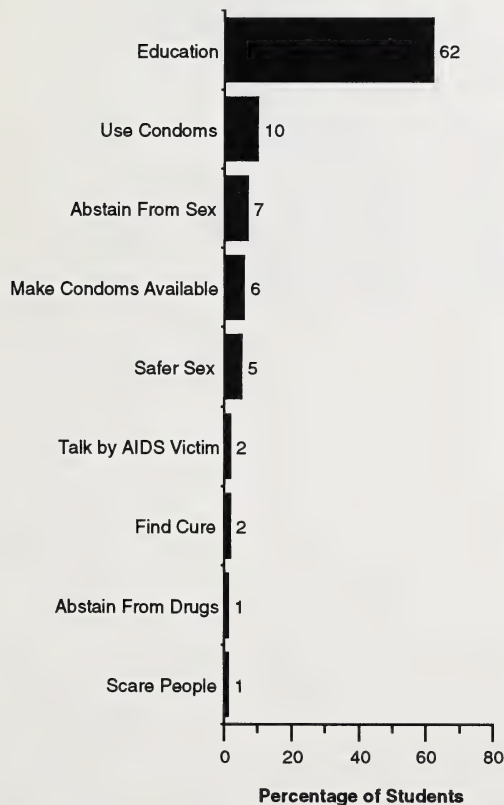
Figure 7: Grade 11 Students' Perceptions of the Common Ways That People Become Infected with the AIDS Virus



Students were also asked what they viewed as most important in helping young people to avoid becoming infected with the AIDS virus.

- 62% of students identified education as most important.
- Several other factors were identified as important to the prevention of HIV/AIDS in young people. These were: using condoms (10%), abstaining from sex (7%), making condoms available (6%), safer sex (5%), talks by AIDS victims (2%), finding a cure (2%), abstaining from drug use (1%), and scaring people (1%).

Figure 8: Grade 11 Students' Perceptions of the Single Most Important Thing to Stop the Spread of HIV/AIDS Among Young People



Discussion

Since the responses in this section were provided by students without prompting in the form of categories to choose from, the questions were also a good test of the accuracy of the students' knowledge.

Students' responses demonstrated high levels of understanding of the common means of HIV/AIDS transmission. However, there was clearly, misunderstanding about donating blood and there may also have been misunderstanding about receiving a blood transfusion. Because of advanced screening procedures, infection as a result of blood transfusions is extremely low in Canada. At the time the study was carried out, however, the media still interviewed and focused on individuals who had contracted HIV/AIDS through blood transfusions. As we know that grade 11 students see TV as a good source of information, it is possible that this misconception was perpetuated through the media.

On the positive side, students are getting the message that certain behaviours (e.g., unprotected sex and IV drugs) may lead to the contracting of the AIDS virus.

The students overwhelmingly supported the idea that the best way to help young people to avoid becoming infected with the AIDS virus is through education. This was an open-ended question and therefore the choices available to students were unlimited.

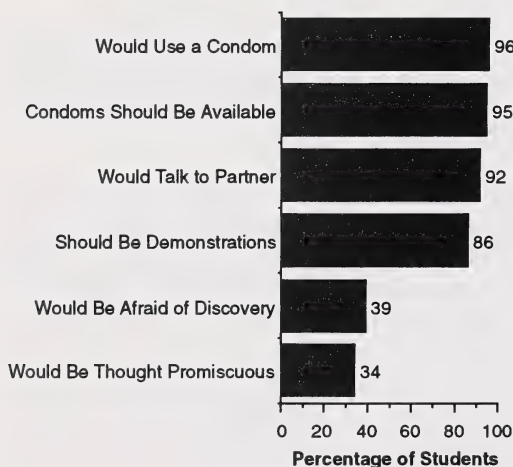
The next most frequently mentioned deterrents to the spread of HIV/AIDS were using condoms, abstaining from sex, and making condoms available to students. Other factors mentioned by only a few students, were: safer sex, talks by AIDS victims, finding a cure, abstaining from drug use, and scaring people.

Findings Regarding Condoms

Students were asked questions about their comfort with carrying condoms, their perceived future use of condoms, and reasons why they would not use condoms.

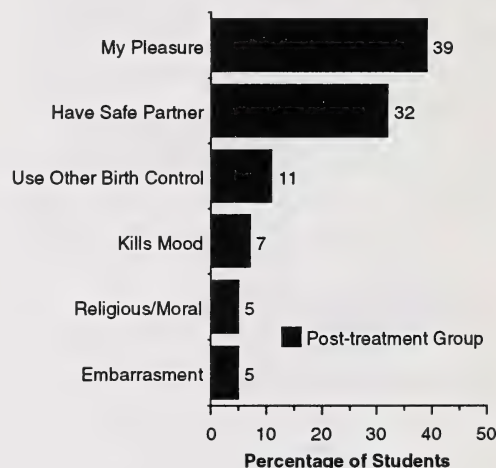
- 34% said they thought other people would think they were promiscuous if they carried a condom. 39% said they would be afraid of being discovered carrying a condom.
- 95% felt that condoms should be made available to students, and the use of condoms should be demonstrated in classrooms (86%).
- 96% said they would use a condom if they were to have sex, and 92% said they would talk to their partners about condom use.

Figure 9: Student Perspectives on Condoms



- Only 32 students (4%) said they would not use a condom.
- 39% of the 32 students said they would not use a condom because of their own pleasure. The second most common reason for not using a condom was that they had a safe partner (32%).
- Other cited reasons were: using another type of birth control (11%), use of condoms kills the mood (7%), religious or moral concerns (5%), and embarrassment (5%).

Figure 10: Reasons Why a Small Proportion of Grade 11 Students Would Not Use a Condom



Discussion

Condom use has become an important topic, as has the installation of condom machines in some high schools. Small percentages of grade 11 students attached a stigma to carrying condoms. The students are asking for more information, and for condoms to be accessible. They are saying that they would like to make safe decisions in the future by discussing condom use with their partners, and by using a condom during sexual intercourse.

Almost all of the students say they would use a condom. Unfortunately, we do not know how accurate these intentions about future behaviour are. Further study is needed to follow this group to see if their intended future behaviour is consistent with their actual future behaviour.

Frequently, the arguments are made that adolescents do not use condoms because they are embarrassed, or condoms are unavailable or too costly for students. Yet, the small percentage of students in this sample who said they would not use a condom (only 4%) were much more concerned about their own pleasure. However these students' perspectives may change as they move to the next developmental stage, and as they receive further HIV/AIDS education.

Summary

When the post-treatment classes were compared to the pre-treatment groups and post-control groups, the post-treatment group had a significantly higher level of knowledge and attitudes. Post-treatment students had significantly higher level of knowledge and attitudes than post-control students even on individual items. There was no significant relationship between the teacher's levels of knowledge and attitudes and the students' levels of knowledge and attitudes. These significant differences due to instruction in schools have been found to be related to other factors, including whether the teacher has received inservice training, the teaching strategy used, and the type of resources that are used in the teaching of the students.

Through comparison of control and treatment students, areas were identified where treatment students had significantly more knowledge and more tolerant attitudes than control students. These are areas where HIV/AIDS education appears to be influencing students, and where continued effort needs to be focused. There were also areas where both groups (even the post-treatment group and at times the teachers) had a low percentage of correct answers. For example, large percentages responded to the following items incorrectly: HIV/AIDS can be transmitted through receiving a blood transfusion; gay females and males are equally at risk; not using vaseline with a condom during sexual intercourse; if needles are shared they must be cleaned with bleach; avoiding socializing with gays is not effective for preventing HIV/AIDS; and passionate or deep kissing with no sexual intercourse puts you somewhat at risk of becoming infected with the HIV/AIDS virus. Teachers need to focus on these areas to reduce students' misunderstandings.

Students' perceptions of ways one might become infected with the HIV/AIDS virus were for the most part right. Again, there is an indication that students not only feel they are informed but actually are informed.

The grade 11 students viewed education as by

far the best way to prevent the spread of HIV/AIDS among young people. They have obviously benefited from their education and can see the potential of education. Other single factors were identified by 10% of students, or fewer, as important to the prevention of the spread of HIV/AIDS. Some of the single factors the students identified as important, such as: using condoms, making condoms available, and safer sex, could be combined as components of HIV/AIDS education. These three single factors, when combined, were identified by about one-quarter of the students. Abstaining from sex was identified by 7% of the students.

Almost all (96%) of the students said they would use condoms, that condoms should be made available, and that they would talk to their partners. Most students (86%) said condoms should be demonstrated. A smaller percentage of students (34 to 39%) said they are still uncomfortable carrying condoms. Only a very few students, 32 of a possible 949 students, said they would not use a condom. Students are at least aware of what "safer sex" is, they plan to protect themselves, and they are supportive of the education they are receiving through their schools in the area of HIV/AIDS.

Use and Evaluation of Student Print Resources

At the time of this study (1987-90), the senior high school Career and Life Management 20 program was newly developed. Alberta Health, in consultation with Alberta Education, made student and teacher resources available to support HIV/AIDS instruction for grade 11 students in their course. Superintendents were notified that resources were available on request. The print resource, *AIDS: What Young Adults Should Know* was made available, in both 1987 and 1988, as was the accompanying teacher guide. As well, *AIDS: The Choices and Chances*, was made available in 1988 at the request of the superintendents, and suggested for use at the grade 11 level.

Students were asked to evaluate the two print resources. They were asked how good each resource was, how informative, how understandable, how much they learned, and how interesting it was.

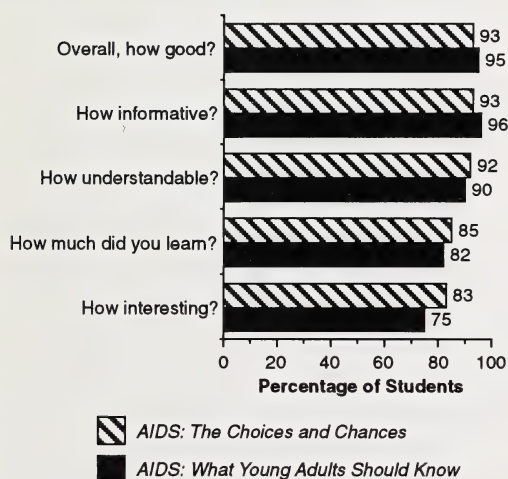
AIDS: What Young Adults Should Know

- *AIDS: What Young Adults Should Know* was rated positively by grade 11 students.
- 96% thought the resource was informative and 95% thought the print resource was good overall.
- 90% thought the resource was understandable and 82% also thought they had learned from it.
- 75% thought *AIDS: What Young Adults Should Know* was interesting.

AIDS: The Choices and Chances

- *AIDS: The Choices and Chances* was rated positively by grade 11 students.
- 93% of grade 11 students thought the print resource was good overall as well as informative.
- 92% thought the resource was understandable.
- 83% thought the resource was interesting and 85% said that they had learned from it.

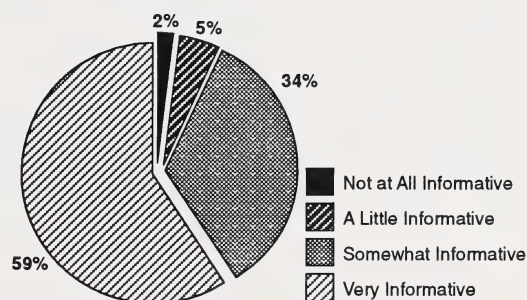
Figure 11: Student Ratings of Print Resources



Use and Evaluation of Student Audio-Visual Resources

- 69% of grade 11 students said they were part of classes where audio-visual resources were used (e.g., films, videos).
- 2% of students thought that audio-visual resources were not at all informative and 5% thought they were only a little informative.
- 34% of students thought audio-visual resources were somewhat informative and 59% thought they were very informative.

Figure 12: Student Evaluation of Audio-Visual Resources



Discussion

Most of the grade 11 students were favourably impressed by both print resources, but a higher percentage found *AIDS: The Choices and Chances* more interesting than *AIDS: What Young Adults Should Know*. Teachers also positively evaluated these resources.

Seeing, reading or using⁹ both of the resources was associated with higher levels of knowledge and more positive attitudes for grade 11 students.

Discussion

According to students, a majority of teachers are using audio-visual resources. Almost all of the students thought the resources were either somewhat informative or very informative.

Students today tend to be visually oriented; this may explain why such a high percentage (93%) found audio-visual resources informative.

⁹ For more details on what relationships are significant please see *HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1*.

Summary

Grade 11 students gave high ratings to both of the print resources that were available to them. They thought they were good overall, informative, and understandable. They felt they had learned from them. A slightly lower and yet still high percentage (i.e., more than 75%) of the students found the print resources interesting. Grade 11 teachers also thought these print resources were useful.

In addition, higher levels of student knowledge and attitudes were found to be associated with the use of these print resources in the classroom. Since print resources of this type are enjoyed by and beneficial to grade 11 students, these should be continued.

Teachers are also using audio-visual resources to good effect. A majority of students found the audio-visual resources informative.

Conclusion

Students in this sample exhibited a high level of knowledge prior to taking the classes on HIV/AIDS and significantly more knowledge and more tolerant attitudes after instruction in the area of HIV/AIDS. Analyses have been reported in other papers in the series¹⁰ to determine what factors are related to this gain in knowledge and tolerant attitudes.

These areas of knowledge were assessed: transmission, description, prevention, and risk. Control and pre-treatment groups had equally high levels of knowledge in the area of prevention. However, there were several topics where even after HIV/AIDS instruction the students still had relatively low levels of knowledge. For example, some of the problem topics were: transmission associated with blood transfusions, being HIV infected without detection, risk for male compared to female gays, information on the appropriateness of use of condoms with vaseline, cleaning needles with bleach, and deep kissing.

Thus, the objective evaluation showed that students have a high level of knowledge and tolerant attitudes. In addition, the students feel comfortable with their level of knowledge about HIV/AIDS.

The grade 11 students reported that many of their sources of information about HIV/AIDS, especially the school, are doing a good job. Other sources described by students as doing a good job were: TV/radio, magazines/newspapers/books, and doctors/nurses/clinics. The sources identified less often as doing a good job were family, friends, and church/synagogue.

However, this picture changed when students were asked where they would go first for help if they thought they had contracted the HIV/AIDS virus or another STD. The largest percentage said they would go to see the doctor first; the next largest percentage would go to the STD clinic. Very few students would go to school personnel first.

The findings may be related to realistic percep-

tions of roles. The role of the school, health units, and print, audio and visual resources seems to be educational or preventative; while doctors, family, and friends would be the support agents if HIV/AIDS or STD were contracted.

A small proportion of students did not know who they would go to see first if they thought they had HIV/AIDS or another STD. These students may have been unaware of the resources available to them or unable to say which of their several resources they would go to see first. In either case, there is a need to assist students in the identification and understanding of available resources in order to enable them to make informed decisions.

Almost all students predicted that they would be sexually responsible in the future by using condoms. The reasons some students gave for not choosing to use a condom were more related to personal feelings and their trust in their partner than to the lack of access.

The audio-visual and print resources that teachers have available to them are having a positive impact on the knowledge and the attitudes of our grade 11 students in the area of HIV/AIDS education.

The grade 11 students viewed the print resources positively. *AIDS: What Young Adults Should Know* was rated by higher percentages of students for its overall quality and informativeness. *AIDS: The Choices and Chances* was rated by higher percentages of students for its understandability, amount of learning, and interest. If future resources were designed with a combination of appropriate characteristics from both resources, the resources would address the developmental needs of grade 11 students.

In conclusion, these young people about to enter adulthood are well-informed about the basics of HIV/AIDS. However, there remains some essential areas where their lack of knowledge could put their lives at risk.

Clearly, HIV/AIDS education needs to focus on these areas. Further investigation is needed to determine whether the safer behaviour that these young people intend becomes part of their lifestyle.

¹⁰ For more details on what relationships are significant please see *HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1* and *HIV/AIDS Education in Schools Evaluation: Teacher Profile, Series Report: 2*.

SELECTED REFERENCES

- Alberta Community and Occupational Health. (1987). *The Alberta AIDS Survey*. Edmonton, Alberta: Queens's Printer.
- Alberta Education. (1988). Teaching about AIDS: A series of lessons providing instruction about AIDS and other sexually transmitted diseases. *Career and Life Management 20, Teacher Resource Manual, (1988) optional program*. Edmonton, Alberta: Queen's Printer.
- Alberta Health (1988). *AIDS: The Choices and Chances*. Edmonton, Alberta: Alberta Health.
- Bell, R.R., & Coughy, K. (1980). Premarital sexual experience among coeds, 1958, 1968, and 1978. *Family Relations*, 29, 353-357.
- Bibby, R.W., & Posterski, D.C. (1985). *The Emerging Generation: An Inside Look At Canada's Teenagers*. Toronto, Ontario: Irwin Publishing Company.
- Canadian Learning Company Incorporated. (1988). *AIDS: Everything You Should Know*. [Videotape]. Scarborough, Ontario: Canadian Learning Company Incorporated.
- Center For Chronic Disease Prevention. (1989). *Growing Special and Free to Say No to HIV. HIV/AIDS Preventative Education*. Des Moines, Iowa: Iowa State Dept. of Education.
- Churchill Films (Producer & Director). (1987). *A Million Teenagers*. [Videotape]. Los Angeles, CA: Churchill Films.
- Creative Media Group (Producer). (1986). *AIDS Alert*. [Videotape]. Charlottesville, VI: Kinetic Incorporated.
- Cronbach, L.J., & Furby, L. (1969). How should we measure "Change" — or should we? *Journal of Educational Research*, 74, 68-80.
- Diclemente, R.J., & Houston-Hamilton, A. (1989). Health promotion strategies for prevention of human immunodeficiency virus infection among minority adolescents. *Health Education*, 20(5), 39-43.
- Edmonton Roman Catholic Separate School Board. (1988). *You Almost Have to Choose to Get AIDS*. Edmonton, Alberta: Edmonton Roman Catholic Separate School Board.
- Feucht, T.E., Stephens, R.C., & Gibbs, B.H. (1991). Knowledge about AIDS among intravenous drug users: An evaluation of an education program. *AIDS Education and Prevention*, 3(1), 10-20.
- Health and Welfare Canada. (1989). *Creative Development Research on Health Promotion and AIDS Prevention*. Ottawa, Ontario: Health and Welfare Canada.
- Hofferth, S.L., Kahn, J.R., & Balwin, W. (1987). Premarital sexual activity among U.S. teenage women over the past three decades. *Family Planning Perspectives*, 19: 46-53.
- Juhasz, A.M., & Sonnenshein-Schneider, M. (1987). Adolescent sexuality: values, morality and decision making. *Adolescence*, XXII, 87.
- King, A.J., Beazley, R.P., Warren, W.K., Hankins, C.A., Robertson, A.S., & Radford, J.L. (1988). *Canada Youth & AIDS Study*. Kingston, Ontario: Queen's University.
- Mobius International (Producer). (1987). *Sex, Drugs and AIDS*. [Videotape]. Toronto, Ontario: Mobius International.
- Ornstein, M. (1989). *AIDS In Canada, Knowledge, Behaviour, and Attitudes of Adults*. Toronto, Ontario: Toronto Press, York University Institute for Social Research.
- Phi Delta Kappa. (1990). *AIDS Education*. Bloomington, Minnesota: Center on Evaluation, Development, Research: Phi Delta Kappa.
- Quackenbush, M., & Sargent, P. (1986). *Teaching AIDS — A Resource Guide on Acquired Immune Deficiency Syndrome*. Santa Cruz, CA: Network Publications.

Sunburst Communications (Producer) (1987). *STD Update*. [Videotape]. Toronto, Ontario: Sunburst Communications.

TV Ontario and Ontario Ministry of Health (Producer). (1988). *Education About AIDS*. [Videotape]. Toronto, Ontario: Ministry of Health.

Walt Disney Educational Media. (1987). *AIDS: What Do We Tell Our Children?* [Videotape]. Toronto, Ontario: Magic Lantern Communications.

Wattleton, F. (1989). American Teens: Sexually active, sexually illiterate. *Journal of School Health*, 57(9), 379-380.

Weaver, D. (1989). Software for teaching about AIDS and sex: A critical review of products. *A MicroSIFT Report*. Portland, Oregon: Northwest Regional Educational Laboratory.

Yarber, W. (1987). *AIDS: What Young Adults Should Know — Teacher Guide*. Vancouver, B.C.: Douglas & McIntyre Educational Ltd.

Yarber, W. (1987). *AIDS: What Young Adults Should Know*. Vancouver, B.C.: Douglas & McIntyre Educational Ltd.

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